CLAIMS

1. A method of calibrating a multichannel optoelectronic assembly comprising:

selecting a first target wavelength;

setting the optoelectronic assembly to a first temperature, wherein the first temperature is in a range of about 30°C to about 50°C;

operating the optoelectronic assembly to emit light;

adjusting the first temperature until a difference between an output wavelength of the optoelectronic assembly and the first target wavelength is less than a first predefined value; and

storing a first control value corresponding to the adjustment of the first temperature.

2. The method as recited in claim 1, further comprising:

selecting a second target wavelength;

setting the optoelectronic assembly to a second temperature, wherein the second temperature is from about 30°C to about 50°C;

operating the optoelectronic assembly to emit light;

adjusting the second temperature until a difference between an output wavelength of the optoelectronic assembly and the second target wavelength is less than a second predefined value; and

storing a second control value corresponding to the adjustment of the second temperature.

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3. The method as recited in claim 1, further comprising monitoring the first temperature comprising:

monitoring a laser temperature from within the optoelectronic assembly;

monitoring an ambient temperature outside of the optoelectronic assembly; and

calculating the first temperature as a function of both the monitoring laser temperature and the monitored ambient temperature.

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4. A method of calibrating a multichannel optoelectronic assembly comprising:

selecting a first target wavelength;

setting the optoelectronic assembly to a first temperature, wherein the first temperature is in a range of about 30°C to about 50°C;

operating the optoelectronic assembly to emit light;

adjusting the first temperature until a difference between an output wavelength of the optoelectronic assembly and the first target wavelength is less than a first predefined value;

setting a first operating value of the optoelectronic assembly;

adjusting the first operating value until the difference between the output wavelength of the optoelectronic assembly and the target wavelength is less than a second predefined value; and

storing a first control value corresponding to the adjustment of the first temperature and the adjustment of the first operating value.

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5. The method as recited in claim 4, further comprising:

selecting a second target wavelength;

setting the optoelectronic assembly to a second temperature, wherein the second temperature is from about 30°C to about 50°C;

operating the optoelectronic assembly to emit light;

adjusting the second temperature until a difference between an output wavelength of the optoelectronic assembly and the second target wavelength is less than a third predefined value; and

setting a second operating value of the optoelectronic assembly;

adjusting the second operating value until the difference between the output wavelength of the optoelectronic assembly and the target wavelength is less than a fourth predefined value; and

storing a second control value corresponding to the adjustment of the second temperature and the adjustment of the second operating value.

6. The method as recited in claim 4, further comprising monitoring the first temperature comprising:

monitoring a laser temperature from within the optoelectronic assembly;

monitoring an ambient temperature outside of the optoelectronic assembly; and

calculating the first temperature as a function of both the monitored laser temperature and the monitored ambient temperature.

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7. The method as recited in claim 4, wherein the first operating value is selected from the group consisting of DC bias current and AC modulation.

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8. A method of operating a multichannel optoelectronic assembly, comprising:

selecting a first operating wavelength from a predefined set of wavelengths, each of the wavelengths in the set of wavelengths separated by a predefined channel separation amount;

accessing from a memory in the optoelectronic assembly a first control value corresponding to the first operating wavelength, wherein the first control value defines a first operating temperature of the optoelectronic assembly between about 30°C and 50°C, and

operating the optoelectronic assembly at the first operating temperature to produce an output wavelength that is within a predefined tolerance range of the selected operating wavelength.

9. The method as recited in claim 8, wherein the first control value defines a first operating value of the optoelectronic assembly,

10. The method as recited in claim 9, wherein the first operating value is selected from the group consisting of DC bias current and AC modulation.

11. The method as recited in claim 8, wherein the optoelectronic assembly is previously calibrated to identify the first control value.

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12. The method as recited in claim 8, further comprising monitoring the first temperature comprising:

monitoring a laser temperature from within the optoelectronic assembly;

monitoring an ambient temperature outside of the optoelectronic assembly; and

calculating the first temperature as a function of both the monitored laser temperature and the monitored ambient temperature.

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